



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,335	05/05/2005	Erich Reitingner	8074-25 (P18005 SB/gra)	2375

22150 7590 06/17/2008
F. CHAU & ASSOCIATES, LLC
130 WOODBURY ROAD
WOODBURY, NY 11797

EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

3749

MAIL DATE	DELIVERY MODE
-----------	---------------

06/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,335	Applicant(s) REITINGER, ERICH	
	Examiner Stephen Gravini	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20041015</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 8 recites the broad recitation "heat treated portion in that it is used for pre-cooling", and the claim also recites "in particular for pre-cooling the fluid" which is the narrower statement of the range/limitation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the reasons set forth above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Strodtbeck et al. (US 5,885,353). The claims are reasonably and broadly construed, in light of the accompanying specification, as being disclosed by Strodtbeck as comprising:

preparation of a space **36** which is at least partially enclosed and has a wafer/hybrid holding device **12** which is located therein and has the purpose of holding a semiconductor wafer and/or hybrid; and

conduction of a dry fluid **58** through the wafer/hybrid holding device in order to heat-treat the wafer/hybrid holding device;

wherein at least a portion of the fluid **80** leaving the wafer/hybrid holding device is used to condition the atmosphere within the space. Strodtbeck also discloses the claimed space essentially enclosed by a container as shown in figure 3, characterized in that the portion is firstly heat-treated and then allowed to flow out within the space at column 5 line 29, characterized in that the portion is heat-treated outside the space and

then fed back to the space at column 7 lines 10-16, characterized in that the portion is allowed to flow out within the space directly after it leaves the wafer/hybrid holding device at column 7 lines 18-45, characterized in that a first portion of the fluid leaving the sample stage is firstly heat-treated and then allowed to flow out within the space, and a second portion is allowed to flow out within the space directly after it leaves the wafer/hybrid holding device at column 7 lines 46-67, characterized in that at least one of the first and second portions can be regulated as a function of the flow rate at column 8 lines 31-50, characterized in that the portion is heat-treated in that it is used for pre-cooling, in particular for pre-cooling the fluid, outside the space before said portion is allowed to flow out within the space at column 9 lines 52-67.

Claims 9-13 and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohtani et al. (US 6,099,643). The claims are reasonably and broadly construed, in light of the accompanying specification, as being disclosed by Ohtani as comprising:

at least partially enclosed space **A4, B4** having a wafer/hybrid holding device which is located therein and has the purpose of holding a semiconductor wafer and/or hybrid; and

a line device **HL** for conducting a dry fluid through the wafer/hybrid holding device for heat-treating the wafer/hybrid holding device and for conducting at least a portion of the fluid leaving the wafer/hybrid holding device into the space for conditioning the atmosphere in the space. Ohtani also discloses the claimed first line via which the fluid can be conducted into the wafer/hybrid holding device from outside the space, a second line via which the fluid can be conducted from the wafer/hybrid

holding device to outside the space and a third line via which the fluid can be fed back from outside the space into the space as shown in figure 9, wherein a temperature regulating device is provided between the second and third lines as shown in figure 10, characterized in that outflow elements are provided at the end of the third line as shown in figure 11, characterized in that the line device has a first line via which the fluid can be conducted from outside the space into the wafer/hybrid holding device and a fourth line via which the fluid can be conducted from the wafer/hybrid holding device into the space as shown in figure 11, a second line via which the fluid can be conducted out of the wafer/hybrid holding device to outside the space and a third line via which the fluid can be fed back into the space from outside the space wherein a temperature regulating device is provided between the second and third lines at column 3 lines 34-57, a heating device **82**, temperature regulating device **83**, and characterized in that the heat exchanger is used to pre-cool the fed-in fluid, characterized in that the line device is designed in such a way that the portion leaving the heat exchanger can be fed back at least partially into the space in order to condition the atmosphere, characterized in that a further line is provided via which dry fluid can additionally be conducted directly into the space from outside the space and characterized in that the space is essentially enclosed by a container at column 8 lines 31-50.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3749

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani in view of Strodtbeck. Ohtani discloses the claimed invention, as rejected above, except for the claimed valve provided for regulating the flow rate of the fourth line. Strodtbeck, another semiconductor/wafer conditioning device, discloses that feature at column 8 lines 31-50. It would have been obvious to one skilled in the art to provide the teachings of Strodtbeck, with a valve, as disclosed in Ohtani, for the purpose of providing an efficient and cost effect means of controlling temperature and flow.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on 571 272 6785. The fax phone

Art Unit: 3749

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen Gravini/
Primary Examiner, Art Unit 3749